

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of:
Michael R. Boyd et al.

Confirmation No.: 8210

Application No.: 09/982,617

Art Unit: 2623

Filed: October 18, 2001

Examiner: Sheleheda, J. R.

For: Multi-Format Media Decoder and Method of
Using Same As An Interface With A Digital
Network

REPLY BRIEF

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Commissioner for Patents
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Honorable Sir:

This is a Reply Brief submitted pursuant to 37 CFR § 41.41 in response to the Examiner's Answer dated April 20, 2007 (hereinafter the "Examiner's Answer"). The Examiner's Answer responded to Appellants' Appeal Brief, filed January 3, 2007 (hereinafter the "Appeal Brief").

ARGUMENT

A. Ground of Rejection No. 1: Claims 1, 11, and 36 Are Not Anticipated by Lavelle.

Claims 1, 11, and 36 were finally rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent 6,678,892 (“Lavelle”). Independent claim 1 recites, in part, “an interface stage for interfacing with a digital data network” and “a microcontroller for controlling said interface stage and said decoder”. Claim 1 is discussed herein as exemplary; independent claims 11 and 36 include similar limitations.

1. “an interface stage for interfacing with a digital data network”

In the Examiner’s Answer (page 4), the Examiner repeated his argument that, because Lavelle includes the term “interface,” Lavelle discloses “wherein the system comprises ‘input/output interfaces’ ... and wherein the system ‘interfaces’ with the digital data network.” Appellants respectfully disagree.

Lavelle does not disclose “an interface stage for interfacing with a digital data network.” At most, as noted in the Appeal Brief, Lavelle merely discloses the existence of “input/output (I/O) interface(s).” (Lavelle, Col. 3, Lines 32-35). While Lavelle may generally mention an interface, there is no structure in Lavelle that supports any interface as connecting with any other component or system. Lavelle does not disclose in any way, for example, an interface to video bus 170 or audio bus 172. (Lavelle, Figures 1A and 1B, Col. 5, Lines 1-7). Thus, the rejection of Appellants’ claims as allegedly anticipated by Lavelle should be reversed for at least these reasons.

2. “a digital data network”

In the Examiner’s Answer (page 5), the Examiner repeated his argument that Lavelle discloses a digital network. However, regarding video bus 170 and audio bus 172, Lavelle does not disclose “a digital data network,” as claimed. It is clear from Lavelle that video bus 170 and audio bus 172 carry different signal types (e.g., video and audio), that the two buses are separate, and that the signal types are contemplated as analog and not digital. (Lavelle, Figures 1A and 1B, Col. 5, Lines 1-7). Although CDs and DVDs are digital storage devices, it is clear that Lavelle does not disclose that the

bus in Lavelle will transmit digital signals, but rather teaches that such signals would be converted to analog signals like the other signals to be transmitted across the analog bus.

In addition, the Examiner repeated his argument that, “as digital data signals are clearly transmitted across the bus network to be decoded and subject to *digital to analog conversion*, the data bus is clearly disclosed as being a digital data network.” (Examiner’s Answer, page 4). To the contrary, although Lavelle does disclose both decoding and digital to analog conversion at the signal processing facilities, neither of these processes teach or suggest “a digital data network,” much less an “interface stage for interfacing with a digital data network.” As noted in the Appeal Brief, in Lavelle, the disclosed decoding is analog, not digital, such as decoding multiplexed analog signals (e.g., by time, frequency, and codes). (See Lavelle, col. 9, Line 62 – Col. 10, Line 2). In addition, although Lavelle discloses digital to analog conversion at the signal processing facilities, this conversion has nothing to do with a “digital data network.” (Lavelle, col.6, lines 9-42.) Instead, Lavelle discloses that the analog signal may be routed from the analog bus, run through an analog to digital converter, processed in a manner such as filtering, and then converted back from digital to analog to be routed back into the analog network. (Id.) Lavelle discloses only that the data on the bus is analog – and not digital – in nature.

Appellants note that “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). See MPEP § 2131.

Here, Lavelle does not disclose every detail of Appellants’ claims, i.e., a digital data network, as is required by 35 U.S.C. 102(e). In particular, the types of wired communication cited in Lavelle include wire bundles, discrete audio and video signals in assumedly analog form, but not a digital data network. Moreover, Appellants submit that a digital data network is not inherent because Lavelle does not contemplate such a configuration. Indeed, Lavelle teaches that different types of buses are possible, but does not teach or suggest a digital data network in an otherwise complete list of bus

configurations. Therefore, Lavelle does not teach or suggest “a digital data network,” as claim 1 recites. The rejection of Appellants claims as allegedly anticipated by Lavelle should be reversed for at least these reasons.

3. “a microcontroller for controlling said interface stage and said decoder”

In Examiner’s Answer (page 6), the Examiner stated that “Lavelle clearly discloses more than the mere inclusion of a CPU, as the system is embodied as a *computer*, with an operating system running in memory and on the CPU, which is *controlling the execution of the system*.” (Emphasis in original.) Appellants respectfully disagree.

Lavelle fails to disclose “a microcontroller for controlling said interface stage and said decoder.” (Lavelle, Col. 3, Lines 24-43). Although the system in Lavelle may be implemented in a combination of hardware and software, Lavelle does not disclose an “interface stage,” much less does Lavelle disclose the CPU “controlling said interface stage and said decoder.” Lavelle discloses that “[t]he machine may be implemented on a computer platform,” (Lavelle, col. 3, lines 32-33) but, as noted in the Appeal Brief, there is no teaching in Lavelle that a microcontroller controls “said interface stage.” Indeed, as discussed above, Lavelle includes no disclosure concerning “said interface stage.” Moreover, Lavelle does not teach that a microcontroller controls “said decoder.” Lavelle merely discloses that his invention may include a CPU. (Lavelle, Col. 3, Lines 24-43). In addition, Lavelle does not discuss a “microcontroller” at all.

In sum, contrary to the Examiner’s assertion (Examiner’s Answer, at 3-6), Lavelle does not teach or suggest “an interface stage for interfacing with a digital data network,” “a digital data network,” or “a microcontroller for controlling said interface stage and said decoder,” as recited by claim 1. Lavelle wholly fails to teach or suggest at least these claim elements. Accordingly, for at least the foregoing reasons, claims 1, 11, and 36, as well as claims 2-10, 12-28, and 37-41, depending respectively therefrom, are in condition for allowance. The Examiner’s rejection of these claims as anticipated by Lavelle should be reversed by this Board.

B. Claim 29 (Ground of Rejection No. 1): Lavelle does not teach or suggest the “digital data stream” or “interfacing said decoder board to a digital data network with an interface stage.”

Independent claim 29 recites a “digital data stream.” In the Examiner’s Answer (pages 6-7), the Examiner stated “please see (b) above in regards to the clear use of a digital data network in Lavelle’s system, as Lavelle clearly discloses the transmission of digital data streams across the digital data network.” As noted in the Appeal Brief and discussed in detail above with respect to claims 1, 11, and 36, Lavelle does not disclose a digital data network. Thus, because Lavelle does not teach a digital data network, Lavelle also does not disclose a “digital data stream,” as claimed. For at least these reasons, claim 29, as well as claims 30-35, depending therefrom, are in condition for allowance and the Examiner’s rejection of this claim should be reversed.

C. Claim 30 (Ground of Rejection No. 1): Lavelle does not teach or suggest “interfacing said decoder board to a digital data network with an interface stage.”

Claim 30 depends from independent claim 29 and recites “interfacing said decoder board to a digital data network with an interface stage.” In the Examiner’s Answer (page 7), the Examiner stated to “please see (a) and (b) above in regards to the clear use of a digital data network and an interface stage in Lavelle’s system.” As noted in the Appeal Brief and discussed in detail above with respect to claims 1, 11, and 36, Lavelle does not disclose “a digital data network” and “a digital data network with an interface stage.” (Emphasis added). For at least these reasons, Lavelle does not disclose the claimed “interfacing said decoder board to a digital data network with an interface stage.” Thus, claim 30 is in condition for allowance, and the Examiner’s rejection of this claim should be reversed.

D. Ground of Rejection No. 2: Claims 2, 12, 31, and 37 Are Not Unpatentable Over Lavelle.

As discussed above, Lavelle fails to disclose each and every element of independent claims 1, 11, 29, and 36. Additionally, Lavelle does not teach or suggest optical networking as described in dependent claims 2, 12, 31, and 37, and those claims are therefore separately patentable. Appellants agree with the Examiner that Lavelle fails

to disclose a fiber optic implementation of the data bus. (Examiner's Answer, page 7). Further, United States Patent No. 5,848,367 ("Lotocky") fails to cure the deficiencies of Lavelle.

Claim 2 recites "interfacing said decoder board with a fiber optic network." (Emphasis added.) Claims 12, 31, and 37 include similar recitations. In the Examiner's Answer (page 8), the Examiner contended that "Lavelle discloses the use of an interface stage for interfacing the decoder board with the digital data network." However as discussed above and noted in the Appeal Brief, Lavelle fails to disclose interfacing with a decoder board. Additionally, Lotocky discloses distribution in both electrical and optical form, but Lotocky does not teach at least interfacing with a decoder board as claim 2 requires. In contrast, as noted in the Appeal Brief, Lotocky merely demonstrates using an optical fiber as a portion of a distribution system, not interfacing a decoder board. Even assuming arguendo that it is known to use optical fiber in an automobile, Lotocky nonetheless does not disclose interfacing a decoder board.

Further, in the Examiner's Answer, the Examiner repeats his argument that "fiber optic cables provide numerous benefits over more traditional connections." (Examiner's Answer, page 7). However, as noted in the Appeal Brief, the Examiner's stated motivation to modify Lavelle is irrelevant to the teachings of Lavelle at least because the small-scale entertainment unit 100 of Lavelle would not claim such benefits due to its small size.

Accordingly, the Examiner has not stated a prima facie case of obviousness. For at least these reasons, claims 2, 12, 31, and 37 are in condition for allowance. The Examiner's rejection of these claims should be reversed by this Board.

CONCLUSION

In view of the foregoing arguments, a reversal of the rejections of record is respectfully requested of this Honorable Board. Appellants believe that no fee is due with this Reply Brief. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 65783-0007, from which the undersigned is authorized to draw. To the extent necessary a petition for extension of time under 37 C.F. R. § 1.136 is hereby made, the fee for which should be charged to the above account.

Dated: June 18, 2007

Respectfully submitted,

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